

## PRESS RELEASE

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## Environmental and Production Benefits Drive Greater Demand for Biotech Crops Farmers experience year-on-year improvements from biotech crops

WASHINGTON, D.C. (Dec. 6, 2005) — As a result of increasing benefits from biotechnology-derived (biotech) crop varieties, farmers are adopting the technology with greater ease than ever before, according to a new study update released by the National Center of Food and Agricultural Policy (NCFAP).

In 2004, U.S. farmers planted biotech crops on 118 million acres, an increase of 11 percent over the previous year. Compared to conventional crops, biotech varieties increased food production by 6.6 billion pounds, a 24 percent improvement from 2003, and provided \$2.3 billion in additional net returns for U.S. growers, a 21 percent increase from the previous year. Biotech crops also reduced pesticide use by an additional 34 percent, or 15.6 million pounds. Pesticide use dropped by 15.6 million from 2003 to 2004.

"After nine years of commercialization, the benefits of biotech crops are self-evident, and growers are responding to better yields and greater financial return by further increasing the number of acres planted to these varieties," said Jill Long Thompson, Ph.D., and Chief Executive Officer of the National Center for Food and Agricultural Policy. "Obviously, these crops have demonstrated great benefits to growers, but what we're seeing now is the significant extent to which these benefits increase each year."

The study examined 11 case studies of six biotech crops planted in the United States in 2004—corn, soybean, cotton, papaya, canola and squash—and is based on data from the U.S. Department of Agriculture's National Agricultural Statistics Service and surveys of Crop Specialists from various universities.

According to the study, insect-resistant crops again produced the greatest yield increase among the crops studied, improving food and fiber production by 6.5 billion pounds. While insect-resistant traits increased production, herbicide-resistant varieties generated the greatest reduction in production costs by reducing the amount of pesticide needed and lowering costs associated with hand weeding and mechanical cultivation. Herbicide-resistant varieties cut costs by \$1.8 billion and reduced pesticide use by 55.5 million pounds.

Regionally, Midwestern states of Iowa, Nebraska, Indiana, Illinois and Minnesota experienced the greatest benefits from biotech crops. Iowa farmers experienced the largest increase in farm income (\$266 million) and the greatest reduction in pesticides (9.1 million pounds annually).

Donna Winters, who grows biotech cotton, corn and soybean on her farm in Lake Providence, La., has personally experienced the benefits of growing biotech crops. Winters said adopting the technology not only helps her operation remain profitable, but also lessens agriculture's environmental footprint.

"When biotech crops were first commercialized, many farmers were interested in trying out the new varieties, and now we're realizing more benefits with each year of planting," said Winters. "In my operation, biotech crops have improved my profitability by 5 to 10 percent because I can spend less money on inputs while boosting production by 10 to 15 percent. Many production factors vary each year, but we are able to sustain improved profitability and yield by using biotechnology despite those variances. Most importantly, planting biotech varieties promotes conservation farming practices, which is important to me because I want my grandchildren to continue farming on our land."

While the economic and production benefits have been significant, biotech crops also make growers confident that they can control weeds while reducing the need to plow the land. Farmers who practice "no-till" farming leave their soil undisturbed, thereby reducing soil erosion and pesticide runoff. No-till cotton acreage increased in the United States by 371 percent in 2004, while soybean and corn no-till acres increased by 64 and 20 percent, respectively.

"Farmers want to be good stewards of the land because it is the source of their livelihood," said Sujatha Sankula, Ph.D., and lead author of the study. "Biotech crops have helped them make great strides and adopt conservation tillage practices, which not only reduces erosion but also decreases greenhouse gas emissions that result from cultivating the soil."

The study is an annual update of a 2002 report by NCFAP that analyzes, quantifies and documents the agronomic, economic and environmental impacts of biotech crops on U.S. agriculture. The complete study, "Biotechnology-Derived Crops Planted in 2004 — Impacts on U.S. Agriculture," is available on the Internet at www.ncfap.org.

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The National Center for Food and Agricultural Policy is a private, nonprofit, non-advocacy research organization based in Washington, D.C. Established in 1984 at Resources for the Future, the center became an independent organization in 1992. Researchers at the National Center for Food and Agricultural Policy conduct studies in four program areas: biotechnology, pesticides, U.S. farm and food policy and international trade and development. NCFAP receives funding from public and private institutions, including government agencies, philanthropic organizations, private corporations and others.